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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,182	05/04/2006	Toshie Takeuchi	290407US3PCT	4578

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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CHAN, KAWING

ART UNIT	PAPER NUMBER
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2837

NOTIFICATION DATE	DELIVERY MODE
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11/09/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/578,182	<b>Applicant(s)</b> TAKEUCHI ET AL.	
	<b>Examiner</b> Kawing Chan	<b>Art Unit</b> 2837	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The Amendments and Applicant Arguments submitted on 07/02/09 have been received and its contents have been carefully considered. The examiner wishes to thank the Applicant for the response to the Examiner's action and for amending the claims in the appropriate manner.

Claims 11-14 are newly added.

Claims 1-14 are pending for examination.

### ***Claim Objections***

2. Claims 13-14 are objected to because both of the method claims 13 and 14 are dependent on an apparatus claim 3. Appropriate correction is required.

As best understood by the examiner, claims 13 and 14 are being considered as if they are dependent on claim 2.

### ***Response to Arguments***

3. Applicant's arguments with respect to claim 1 filed 07/02/09 have been fully considered but they are not persuasive.

In response to applicant's argument with respect to claim 1 that "Mianzo does not suggest to a person of ordinary skill in the art that the system of Ramos should be modified to displace the moveable portion of an actuator between the normal position

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and the semi-operation position located between the normal position and the actuation position", the examiner disagrees with applicant's argument.

The recited limitation in claim 1 only requires "the movable portion" displaces between "normal position" and "semi-operation position". It does not require "the movable portion" to move back and forth between "normal position" and "semi-operation position" only. Any actuator can be moved from one end thru semi-position to another end (as disclosed by Ramos and Mianzo), and it inherently discloses the displacement of the actuator between normal position and semi-operation position. Thus, both Ramos and Mianzo disclose the claimed limitation. Mianzo is further used to disclose electromagnetic coil for displacing the movable portion from "normal position" to "semi-operation position" or from "semi-operation position" to "normal position" (as shown in Figures 1A-C).

In addition, the electromagnetic coil disclosed by Mianzo inherently discloses the displacement of the movable portion is activated by adjusting the amount of current (energize or de-energize the coil).

4. Applicant's arguments with respect to claims 3-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramos (US 5,717,174) in view of Mianzo et al. (US 2003/0107017 A1).

In Re claims 1-2, with reference to Figure 1, Ramos discloses an actuator having a movable portion (4) displaceable between an actuation position where a safety stop device (1, 6) of an elevator is actuated and a normal position where the actuation of the safety stop device (1, 6) is released (Col 1 line 9 to Col 2 line 25; Col 5 lines 53-61).

Ramos fails to disclose the movable portion displacing between the normal position and the semi-operation position.

However, Mianzo discloses an electromagnetic valve actuator (10) comprising a movable portion (36) which is capable of displacing between the open position (Fig. 1A), the middle position (Fig. 1B) and the closed position (Fig. 1C) by adjusting the amount of current flows through the electromagnetic coil (38, 40) (Paragraphs [0012, 0015, 0016]). As per MPEP 2112.02, it can be assumed the device will inherently perform the claimed process when the prior art device is the same as a device described in the specification for carrying out the claimed method. *In re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Ramos with the teachings of Mianzo, since it is known in the art to utilize an electromagnetic valve actuator to provide infinite variability for the duration and timing of the open and close cycles (Paragraph [0004]).

6. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramos (US 5,717,174) in view of Yuuki (US 6,390,036 B1).

In Re claim 3, with reference to Figure 1, Ramos discloses:

- an actuator having a movable portion (4) displaceable between an actuation position where a safety stop device (1, 6) of an elevator is actuated and a normal position where the actuation of the safety stop device (1, 6) is released, and an electromagnetic coil (9) for displacing the movable portion (4) by causing a current to flow through the electromagnetic coil (9) (Col 1 line 9 to Col 2 line 25; Col 5 lines 53-61);
- a feeder circuit (Figure 2: 23) for supplying an amount of electricity required for displacing the movable portion from the normal position to the actuation position (Col 5 line 8-61).

Ramos fails to disclose a feeder circuit for supplying an amount of electricity required for a semi-operation being less than that required for a full operation for displacing the movable portion from the normal position to the actuation position.

However, Yuuki discloses a feeder circuit (inherently) for supplying an amount of electricity (supply current to coil) required for a semi-operation, in which the movable portion is displaced from the normal position to a semi-operation position located between the normal position and the actuation position (move armature from one end to zero lift position by coil 13 or 15) (Figure 2; Col 1 line 21 to Col 2 line 12), the amount of electricity required for the semi-operation being less than that required for a full

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operation for displacing the movable portion from the normal position to the actuation position (when armature moves from one end to another, both of the coils 13 and 15 has to be energized, and thus more current has to be used).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Ramos with the teachings of Yuuki, since it is known in the art to utilize different structure of actuator (e.g. moving armature from one end to another by one coil as disclosed by Ramos or moving armature from one end to another by many coils as disclosed by Yuuki). All the claimed elements were known in the prior art and one skilled in the art could have combined the elements (modify Ramos by using more than one coil) with no change in their respective functions (the actuator would still be able to actuate from one end to another), and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention was made.

7. Claims 4-5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramos (US 5,717,174) in view of Yuuki (US 6,390,036 B1) as applied in claim 3 above, and further in view of Takeuchi et al. (US 2002/0044403 A1).

In Re claims 4-5, Ramos and Yuuki have been discussed above, but they fail to disclose the feeder circuit comprises a capacitor and a resistor.

However, Takeuchi discloses a feeder circuit (Figure 2) of a switching apparatus (Paragraph [0050]) comprises a capacitor for supplying electricity to the electromagnetic

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coils (10a, 10b, 11, 12) and a resistor for consuming a part of the amount of electricity (Figure 2) (Paragraph [0051]).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Ramos and Yuuki with the teachings of Takeuchi, since it is known in the art to utilize capacitor as power storage device to provide electricity and it is also known in the art to utilize resistor to consume power of a circuit.

In Re claims 8-9, with reference to Figure 1, Ramos discloses a load portion (3) for generating a drag acting against displacement of the movable portion (4) in a direction approaching the actuation position.

8. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramos (US 5,717,174) in view of Yuuki (US 6,390,036 B1) as applied in claim 3 above, and further in view of Sadamori (JP 08061405 A).

In Re claim 6, Ramos and Yuuki have been discussed above, but they fail to disclose a detection portion.

However, Sadamori discloses a brake checking device includes a displacement detector (18) for detecting displacement of the movable portion (1, 17) by comparing the detected voltage change according to the amount of displacement with a preset reference voltage (Abstract; Paragraphs [0012-0014]). Therefore, it would have been obvious to one skilled in the art to determine the displacement of the movable portion at

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any position between the normal and actuated position by comparing the detected voltage change with the preset reference voltage.

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Ramos and Yuuki with the teachings of Sadamori, since it is known in the art to utilize a detector for detecting the operating state of an electromagnetic brake so as to be able to inspect the operating condition of the electromagnetic brake.

In Re claim 10, with reference to Figure 1, Ramos discloses a load portion (3) for generating a drag acting against displacement of the movable portion (4) in a direction approaching the actuation position.

### ***Allowable Subject Matter***

9. Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art do not teach or suggest a device or method comprises an inspection mode capacitor for supplying electricity for the semi-operation, a normal mode capacitor for supplying electricity for full operation and a switching device for switching between connecting the inspection mode capacitor or the normal mode capacitor as recited in claims 11 and 13. The cited prior art also do not teach or suggest a device or method comprises a switch for connecting a capacitor for the full

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operation and the switch is configured to connect a resistor and the capacitor for the semi-operation. The combinations of the claimed limitations in the dependent claims 11-14 with their correspondence independent claims are not anticipated or made obvious by the prior art of record in the examiner's opinion.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liang et al., Miyazawa et al., Mohler et al. and Jamieson et al. are further cited to show related teachings in the art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kawing Chan whose telephone number is (571)270-3909. The examiner can normally be reached on Mon-Fri 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. C./  
Examiner, Art Unit 2837

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837